Vegetation

1866

11/54

Boländer, H. N.

Santa Rosa Valley all Oaktrees
Qu. lobata, agrifolia, Sonomensis
are covered on the foggy side by
Antitrichia Californica, Hypp. Nuttallii
Alsia abietina and Barbula
— var viridis. Ramalina
Menziesii
Ulrich Redwoods on the hills 14/4
west of it and in the Cañons. Tsuga
Douglasii descends into the Valley
at Ulrich mixed with Qu. Sonomensis
Arbutus Menziesii. Arctostaphylos
glauca, Qu. lobata & agrifolia.
Qu. chrysophylla in the Cañons
west of Ulrich — The hills east
of Russian river opposite of Ulrich
(Clear Lake divide) about 1/2 mi
wide are covered with Adenostema
fasciculu almost exclusively — only
the very lowest with Qu. Sonomensis
and a few P. Sabiniana

P. tuberculata west of Ukiah
Ln. Pan Belii Hillsides
Hopkins; In the open valley they
are like those & above mentioned
in San R. V. . in the gulches
and along Mountain Creeks

Hypn.
Gloia abietina
Neckera
Hygodon Calif.

Entostodon
Pleuridium subulatum
flexilis

Gloia California is not
found -

Absence of young undergrowth in
the Valley. Multiplicitude of
species in one locality where cred
the same phys. conditions offer
themselves.

Russian River banks: (1/2 mi. wide)
Willows, Fraxinus, Populus
Ln. lobata.

Iris
Pteris } grove

Weeds of California
arvensis (Petaluma)

Xanthium
Sinapis
Silene
Centaurea
Lolium temulentum

Sylvania Marisana

Hot Springs (Bentonite)

Coarse sandstone 2-300 feet
b. & position not the.

Bastramia
Brannia
Hypn. bisp
Grimmia tri
Zygodon Calif.
Ceratodon ?
ciliata

Saxifraga - Romansoffia

Pinus ponderosa 1/4 of a mile
north of Ukiah in the valley also
on the divide of Big River about
12 N.W. of Ukiah - few only
Tsuga Dougl. is predominating

east of the divide.

Abropis Calif the only hyp on
the hills and dry valleys - Lopto-
theca Calif - the main hyp
of wet places in low meadows
Atopecurus around Ukiah

Divide: coming up Mill Creek

Quercus chrysolepis } not in flower
Quercus densiflora }

The largest sp. and the most beautiful
From the divide to the coast
S.W. W. & N.W. a continual forest
of Redwood, Tsuga mixed here and
there by Abies grandis.

The most common species of
Cal. plant from the V. on the
side hills and narrow valleys
(Sarcodes sanguinea ?) in
the Redwoods.

(Mostly pure sandstone)

(Andy Gibson's Ranch
now by W. R. Stone)

Here and there the tops of ridges visible, being void of all vegetation look like little green lakes –

Creek head waters of Big R.

Hypp. Strictissii

" "

" " myosuroides

Nectria Menziesii

Orthr. Lyellii

Sticta anthraspis

Verrucaria

On Dry rocks Barbula vinealis

Brownia Calif

Grimmia trichophylla

more shady side Bartramia Menziesii

moist ground lightly shaded

Trichostomum flexipes

Ukiah Valley shrubs &c tr

Arctostaphylos gl.

Ceanothus

Rhus

Eriodyction Lonzleyii

Qu. Lonoensis, Garryana, lobata

Aesculus Menziesii. Tsuga Douglasii

Pinus ponderosa, Aesculus Calif.

1/0 Iris. Ranunculus. Lupinus latifolius

Soil, on each side at the foot of the hills, consists of a coarse angular gravel, including the bed of the Russ. River it makes two miles leaving a mile on the average of good arable land

2/0 Galium. Asclepias, Wyethia. Erythronium

Cycobatthra. Gymnogramma grande

Scutellaria tuberosa, Sanicula tuberosa

Lupinus and Grapal fistu- Filix.

Tsuga Douglasii is used for
charcoal at Ukiah, said to
be the best.

Qu. lobata 16 f. 8 inch circ
4 feet above ground.

3,0 Dichelostemma congesta
Blennosperma Calif
Viola chrysantha.
Whitish composites

The chaparral west of Uk
consists of Adenostema
Ceanothus dentatus
integerrimus
white fl. 3.

N.B. Eu. chrysolepis Mount=Live oak
Mount White oak

Qu. Garryana 9 feet circumf
4 feet above ground
near Ukiah

Lichens: Trachylia Calif. at
Monterey sparingly and poor at
that. Monte de Diablo Trichylia
B. but not T. Californica, at
Petaluma Trachylia Bol. not
Trach. Calif. At the heights
around Ukiah and west to
the divide of the Russian
R. and Albion no traces.
Sticta anthraspis common to
wards that divide.

Ukiah to

Long Valley

From Uk to the upper portions of Calpella Creek and from there to the divide of the waters of the Russian and Eel rivers the soil consists of gravel and a coarse reddish hard clay not fit for cultivation and principally covered with Black oak. Little Lake valley 7 mi long 3 wide - is very fertile heavily wooded but too wet in wet seasons, the valley is of an oval shape surrounded by high hills covered largely with P. Ponderosa In the Valley are is a pretty dense growth of Q. Lobata

From little Lake to Laverwood valley a distance of 12 miles there is but little soil fit for cultivation The road winds along on a divide on the edge of the Redwoods affording a fine view of the ocean the snow crowned mountains of the Coast range (40 miles long crowd) non of these points are prominent it is more a continual ridge The country is exceedingly broken and hilly (mountainous) but few small valleys

Calpella and Long Valley - before reaching these places the road passes through

some excellent
Woods composed of
Pseuga Douglasii
Sequoia sempervirens
Lau. densiflora mostly
magnificent trees
Castanea chrysophylla
quite a large tree
Arbutus Menziesii
Lau. Sonomensis and in
the dryer portion some
P. ponderosa.

Between Cahto and Long
Valley 2 1/2 miles this
is quite an undergrowth of
young P. ponderosa
with is. The hillsides:
Pinus Ponderosa
Pinus Lambertiana

Lau. Sonomensis (hills)
Cahto (valley)
Long Valley 7 mi long, 1 - 1 1/2 - 2
wide N.W. extension.

Meadows in swampy places
contain Carex (4)

2-3 sp. Juncus (Lophodeum
Californica but few bunches)

Rosa gymnocarpa. Snowberry
form quite a part of the vegetation
on the banks of creeks
Lupinus latifolius - Dielytra
formosa quite common.
Long Valley

Wood is said to be better north, than south.
On the western slopes of the hills near Cahto is no Red wood (Pinus Douglasii, Pinus ponderosa, Lambertiana Sequoia sempervirens Abietes Menziesii on the prin. trees) and none occurs to Round Valley
Ap. 26 accord a heavy frost with some ice - East of Red woods (in valleys adjoining) frost occurs until June Spring is west of the Red-woods much earlier and there is no frost

Big so pyrum strictum=wire grass - Carex -

in a large pond covered by Nuphar used for hog.

Cahto = means large water
23/4 Thy had 92° F in the shade at Long Valley

25 — 30 miles from Cahto to Round Valley

Round Valley 7 mile in all directions cont; 16-20,000 A of Ls

Chalk Bluffs

Contra Costa

Both Woods used in the Valley abundantly —

Apocynum Cann is used by the Indians for making ropes —

Thalictrum as an antidote of Syphilis

16-20,000
1/2 Livery land
1/4 arable
1/4 gravelly soil

Drainage

Rain during 65-66. = 54 inch

Heat in summer up to 120° F

Jackson Valley 10 mi W of Calto

A belt of Tsuga Douglasii
few Redwood. Arbutus M.

The Mountain Live oak occurring on the higher peaks

Castanea
Corylus
Valeicinium
Ceanothus dentatus

Clintonia Andrewsiana
Scaliopus Big
Erythronium

Hosp. { Neckera
Menziesia
Stieta

Hysp. Oregona, subimpressus

Redwood 14 feet diam
Tanya Dougl. 160 years
Radius 28 inch

The Redwoods from Jackson Valley to the Coast at Snippers do not change in any respect, except in a thicker undergrowth of shrubs + Ceanothus especially

Noyo Plains

Begin a little south of the Ten Mile R. and extend along the Coast to the Albion at an average of 3–6 miles east.

Soil sandy,
swamps in some depressions

Trees. Pinus contorta 100–
Pinus 25–
Abies grandis 150–

Alnus
Quercus densiflora
Ceanothus thyrsiflorus + sp.
Arctostaphylos tomentosa & manzanita
Rhododendron
Balmisia?
Vaccinia (2)

Myrica Californica
Gaultheria Shallon
Pteris aquilina
Blechnum boreale
Asp. munitum
Adiantum pedatum
Woodwardia radicans

Grasses &c
Poa &c
Calamagrostis (2)
Festuca scabrella
" "
Hirschlea
Carex six spp.

May 6th quite a heavy frost.

Scarcity of fishes in rivers flowing through Redwoods

Trees back of Big R.

First terrace Pinus contorta and a few Abies grandis.

2d terrace some Redwood & Cupressus
Tsuga Douglasii
Castanea chrysophylla

Veratrum in moister places grassy plant

Groves of Redwood
Abies grandis

Abies grandis — wood brittle, will not burn — large grained — rotten easily prostrated

Soil — loose terrace sand the ocean clay (black) mixed with a great deal of veg. matter — Second terrace Substratum a white yellow friable soft sandstone covered with a few inches of loose sand and veg. matter

The densest section contains
Rhododendron 1—5—
Cupressus 1— 8
Pinus little
Pinus contorta
Arctostaphylos little
few Pteris but more of the grass plant.

Spots among the buches
little composite
Funeus bufonius
Hypericum
with dense intricated
leaves
Trifolium heterodon + l.
Viola tricolor
Viola arvensis
Lycopus
Carex
Systembrium lutetianum quite com
but few of
Bermudiana

Mopses.
Tunaria hygrometrica
Hypn. Crista
plicatus
Dicranum subulatum
Dicranum

Pinus contorta?

Young trees of rather rapid growth shoots over 12 inch. Their leaves and cones are larged (twice) the male catkins are more attenuate and occupy (less crowded) a larger part of the branchlets leaves persistent for two rarely 3 years

Old trees very irregular branched with densely intricate branchlets; mostly leaves of two year, cones rem small persistent for a great number of years, many open however after being 2-3 years old leaves short-lived aments densely crowded in a short

spur.

Bark rough - rimose very resinous - wood valueless except fuel - and knees

Other old trees have the leaves nearly as long as the young ones the large branches run horizontally - forked near the end and have there densely intricated branchlets - cushion like, giving great weight to the main branches - all branchlets of one years growth stand erect,

Trees generally 1-3 feet diameter 80 - 125 feet high - many forked 2-4 feet above ground throwing out two main axis Soil poor, roots numerously horizontal - Cones 2-5 in whorl

persistent for a great many
years, trees of one foot in dia
may be seen with some on
the trunk — reflexed, ripen
in the 2 or 3d years
{ male and female aments
{ subterminal
but some male are
terminal

Albion
Little River
Big River to Noyo 10 mi
Jack Peters Gulch
Russian Gulch
Det R Gulch Grove of Mg grandis
Tom Young's Creek
Coast Creek. Saw Mill
mainly Mg grandis on the
borders, mostly fractured
by N. W. winds, tops dry or
broken off.
Fug Gentle Creek
Mitchel's Creek
Hare Creek
Noyo River

Spahagnum Swamp

1 Acre

Muzzica Scalif

Cupressaceae mucro carpa

Dorsera

Sit = Carex Gramineae carpa

rosea

glaucous

black

Ledum

Betula nana

Veratrum

Soil deep black 3-4 feet

with roots to 1 and 2 meters

below Mat clay

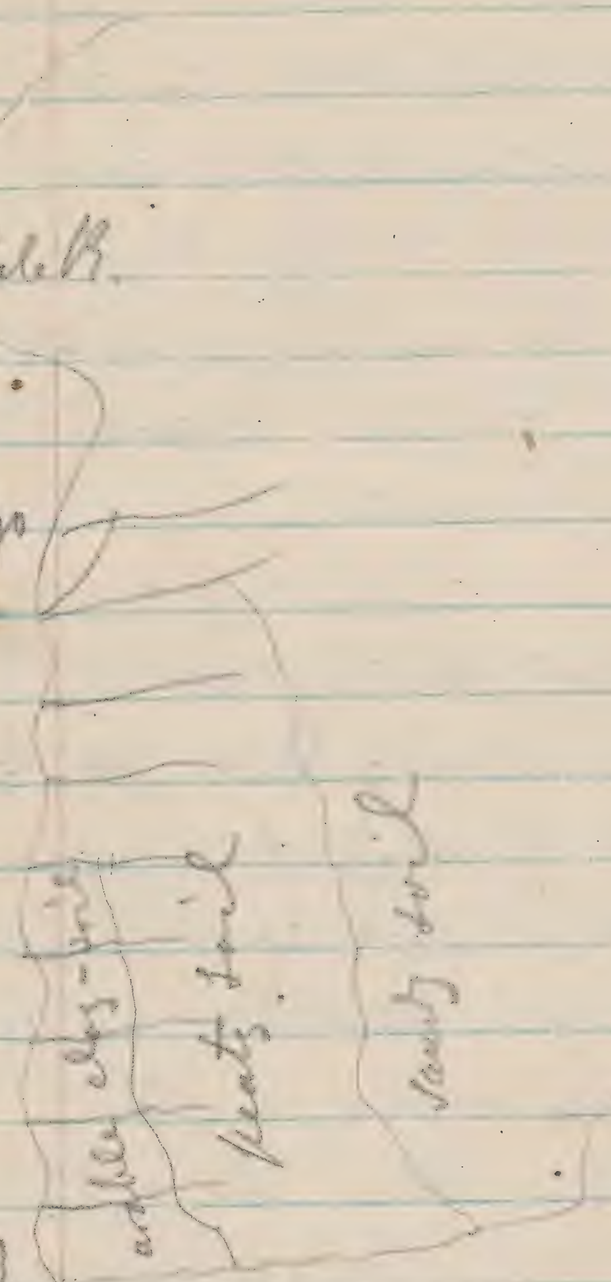
Alnus

Populus tr.

Sanguisorba

Flora

All mouths of the various Creeks have shoal with a sand-bar on the south east side. The bluffs diminish to the north until they are lost in a regular beach Sandstones broken up in irregular angular pieces from 1-2 feet resting on a whitish clay or gravel, some places fine sand-like, in others rather coarse. The whole is an undulating plain rising gradually to the banks of each Gulch and generally towards Big R. Between each Gulch are again one or more slight depressions with springs and here is generally peat 4-5 feet



The soil of this plain is poor yielding slight crops in many places extremely barren such have dwarf Cupressus the small Pine Ceanothus dentatus & — Rhododendron Arctostaphylos s. —

Potatoes (good) barley oats about 10.00 per A.

bark of Qu. densiflora used for tanning. said to be tolerable good timber when seasoned ripens it acorns in the second year — Hogs do well on them. used for athletics and pulp — good fire wood Requires * Castanea it long used for handles of working tools — but too brittle splits well.

* unripe tan?

Coast oak = Qu. densiflora
Chesnut Oak = Castanea chrysophylla
{ Yellow Pine
{ Oregon Pine = Tsuga Douglasii

Ash = White ash =
hard wood = useful

Abies grandis = for staves
splits well —

The little pine = ?
Strong smell — peculiar

This wood does well for wagons provided they are housed up at and well painted as it will not stand moisture

Plants of the Plains

Whipplea modesta
Clintonia Andrewsiana
Saxifraga Californ
Pentstemon confertus
viridis
Scabrella
Melica imperfecta

Calamagrostis 3
Hoiers Stipa macrophylla
Bromus vineus
Atropis
Iris etum
Panicum
Agrostis asperifolia 1/2-1 inch
covers on the 3d terrace
long tracks

Trientales Eu

Ribes
Ribes Nuttkana
Scilla esculenta
Asaphes &c
4 sp belonging Saxif

Carices

Gramineae 5
Solanum tuberosa
Epilobium
Eleocharis 1

Shasta berg on other bare plains

Salmon berry

Yellow Line Pinus Ponderosa
(the hard wood of it answers
for post (10 years in ground)
Sr. Sargent Long Valley

Pinus contorta is dug up
for ship Ruces to con-
siderable extent

In 65 years 32 inch diam
3 feet above ground, some
layers 1/2 inch thick

Little R. Lanstons
Lecanora ferruginea
Lecanora B or
Trachylia Bol
Pertusaria " "
Lecanora alba
Buellia halonia fm
Parmelia conspersa

Abies

Height 150 - 200 Feet
1 - 3 feet diameter
Trunk with long branchlets
to the very top; tops,
roundish, branches irregular
Bark slightly rimose
reddish - brown red
Young trees very slender
in thickets with a smooth
cinnamon-red bark -
it branches exceeding by
fine and slender

Cones numerous on the ends
of branchlets, drooping

Association near the bank
of Big R.

Abies (majority)
Abies grandis
Sequoia sempervirens
Cu. densiflorus

Pines on the plain
Bostrichus of Trees
esp. Abies grandis and Pinus
contorta, bark being hard
food-roots on the surface

Holes formed by burnt
trees cored with Pinnaria
others with Sphaz.
others with Fomes
Channels with Hyp. fluctans
Trees bored with Dulacoma

Lea coast with
Quercus thyroeifolia
(Lagle Klamath) Garrya
Pinus contorta in
small groves and
the latter in the northern
portion forming thickets

3d section forest
Eriogonum
Pinus Lith.
Arctostaphylos
Rhododendron
Bog plant.

Plains (Ft)

1/ Clay - wood peat
2/ Sand
3 Sandstone 3-4 feet thick
4 Gravel (well worn)
Thickness unknown

Average age of Redwoods
200-250
Lumber of the same age

45 mill. of feet lumber
shipped by the mills
Navarro
Albion
Little River
Big River
Mays. Gulch

{ Cooper Creek
{ Navajo —

of which I will inv
ib Tsuga Douglasii
the rest Red Spruce
(150 years to come)
Abies Fraseri has
been shipped (for
stems ashes Barrels)
but considered useless

Thickets in Cook bottoms
Rosa rubus Col.
Alnus
Rubus Laliuus
Rubus Nutkanus

{ New Mex Boyd
{ Hayp stockesii
{ Ind Maria

Anderson Valley

Lu. densiflora - Tanoak
= Chestnut Oak (2)

Lu. densiflora = Florida Oak
Black live Oak.
Very hard, susceptable of high
polish (used for buttes).

Tsuga Douglasii =
Splits under the nail, wears
not smoothly, Wrought a stout wood.

Pinus Lambertiana a fine
scattered over the hills
Several groups of
Libocedrus decurrens.
White Cedar -
Picturesque panel-work

Quercus Lobata Black Oak
good fire wood ①

Quercus { Douglasii
Lobata = Garryana
Garryana

Quercus Wislizeni Live Oak
best wood to burn green equal
to Hickory ②

① if cured in water 3-4 weeks becomes very tenacious, tougher, stronger than white oak, it will not decay as quick nor will it attacked by worms especially if water-cured - spokes, axletrees (rim sawed white ash when water cured) (timber should be cut in the latter part of Sep - October or Nov)

18/5-66.

Bloom Oaks

1/ Quercus Lonmensis
fruit biannual

2, Quercus agrifolia

3, Qu. Wislizeni
fruit biannual

4 Qu labata
5. Douglasii
6 Garryana

} seen in fruit bloom
end of April — 1st May

May = Middle of June

7. Qu. densiflora
fruit biennial

8 Qu. chrysolepis
9. Qu. acuminata

} not seen up to the 18/5

Anderson Valley
15 mi l, 1½ wide
Well 32 feet loose
gravel mixed here
and there with a yellowish
clay

Navarro R. on the east side
& little creek on the west side
joining the main R in the middle
of the valley

Alnus Rugosa
Salix Lasiandra
" Lasiolepis
" Sessilifolia
" Lucida
Populus Wislizenii
Arctostaphylos
Alnus Borders of Navarro
and Creek
Willows

Gravel and cobble stones
from the substratum of the
Valley on the east side
can be distinguished three
different flood-plains
of the Navarro

Great variety of grasses
Vicia 3
Lastridium
Bromus vicinus
Phelica 2. (2 tiers forms)
Lolium temulentum
Stipa eminens
Trisetum
Festuca sertulla, microstachys
avena
Poa.
Agrostis
Polaris arundinacea
Agrostis pallida

Phleum
Lophochlaena
Stipa douglasii
indicates a poor soil, generally
found on a wet clayey soil
whose subtratum does not permit
the water to percolate through
it.

Anderson Valley
A few limestone boulders
on the hillsides near
Kendall's

A large ledge of limestone
near Bennets' ranch
Fort Ross - also (said)
Limestone near Santa Rosa
and Mark West's Creek

(Reported)

Forms of S. microdactylo

a pol. pekylla
b. longifolia (its bulbs in fibro elongate
c villosa
d spiciformis
e densa

Forms of Melica geocides

a geniculata
b, villosa.

Three forms of Trisetum

S.s entering Cloverdale
Qu. W. Dodypoint and ale
Lime and seem is Quarry
22/5 66 mm
mm
Bodega corners
T. Curtis . Tannery
Shales in sandstone
mm

Box No 1. Ulrich (Leich)
Box No 2 Abendroth
Box No 3 Abendroth
contains Bones and surface
Box No 4.
Spheroid surface
sent from Radnor V.

C. H. Ebele
Cahto
Mendocino Co.

A. B. Kendall
L. W. Howland
Anderson Valley

Yokaya

6 inches each way

Below
Bilder 4,
Feder (Füße) 10 gut

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PAT. JAN 21, 1908

Bolander, Henry N. California. 1866.

Plant observations by localities

Holograph list of localities given in the notebook.

PAT. JAN 21, 1908

A list of localities from Dr. Henry N. Bolander's note book.

1866.

April 11. Santa Rosa Valley.

" 14. Ukiah: cañons west & hills opposite.

Hot Springs (Bentons)

Divide of Big River: 12 miles northwest of Ukiah.

Divide: Coming up Mill Creek.

Andy Gibson's Ranch. ("now occupied by W. R. Stone")

Creek: headwaters of Albin River.

Ukiah Valley.

Ukiah to upper part of Calpella Creek.

Calpella Creek to Divide between Russian & Eel Rivs.

Little Lake Valley to Sherwood Valley.

" 23. Cahto to Long Valley (2½ miles)

Cahto to Round Valley (25-30 miles)

Jackson Valley. (10 miles west of Cahto)

Jackson Valley to the coast at Simpson's.

Noyo - plains

May 6. Trees back of Big River.

Groves of Redwood (?)

Albin River.

Big River to Noyo (10 miles)

Jack Peter's Gulch.

Russian Gulch.

Dark Gulch.

PAT. JAN 21, 1908

1866.

Tom Young's Creek.
Caspar Creek Saw Mill.
Jug-handle Creek.
Mitchell's Creek.
Hare Creek.
Noyo Rivers.
Anderson Valley. (15 miles long, 1½ miles wide)
May 22. Cloverdale
Bodega Corners. (Sonoma County)

PM: JUN 21, 1905

PAT. JAN 21, 1908